



*California Environmental Protection Agency
Department of Toxic Substances Control*

**HAZARDOUS WASTE FACILITY
POST-CLOSURE PERMIT**

Permit Number: 05-SAC-10

Facility Name:

Chemical Waste Management Bakersfield
27001 Round Mountain Road
Bakersfield, CA 93308

Owner Name:

Waste Management, Inc.
27001 Round Mountain Road
Bakersfield, CA 93308

Operator Name:

Waste Management, Inc.
27001 Round Mountain Road
Bakersfield, CA 93308

Facility EPA ID No.: CAT000624056

Effective Date: _____

Expiration Date: _____

Permit History:

HAZARDOUS WASTE FACILITY POST-
CLOSURE PERMIT ISSUED APRIL 30,
1991, EXPIRED APRIL 30, 2001

Pursuant to section 25200 of the California Health and Safety Code, this Resource Conservation and Recovery Act (RCRA) equivalent Hazardous Waste Facility Post-closure Permit is hereby issued to the Chemical Waste Management Facility. Issuance of this Permit, which consists of 14 pages plus attachments, is subject to all terms and conditions set forth herein.

James M. Pappas, P.E.
Chief, Northern California Permitting and
Corrective Action Branch
Hazardous Waste Management Program

Date: _____

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PART I. DEFINITIONS

All terms used in this Permit shall have the same meaning as those terms have in the California Health and Safety Code, Division 20, Chapter 6.5 and Title 22, California Code of Regulations, Division 4.5, unless expressly provided otherwise by this Permit.

1. "DTSC" as used in this Permit means the California Department of Toxic Substances Control.
2. "Permittee" as used in this Permit means the Owner and Operator.
3. "HSC" as used in this Permit means the Health and Safety Code.
4. "Cal. Code of Regs." as used in this Permit means the California Code of Regulations.
5. "Approved Application" as used in this Permit means the Part A and Part B portions of the permit application described in Part III.1 of this Permit.
6. Unless explicitly stated otherwise, all references to items in this Permit shall refer only to items occurring within the same part.

PART II. DESCRIPTION OF THE FACILITY AND OWNERSHIP

1. OWNER

The facility owner is Chemical Waste Management, Inc. (hereafter "Owner"), a wholly owned subsidiary of Waste Management, Inc.

2. OPERATOR

The facility operator is Chemical Waste Management, Inc. (hereafter "Operator"), a wholly owned subsidiary of Waste Management, Inc.

3. LOCATION

The Chemical Waste Management, Inc. Bakersfield Facility is located approximately 13 miles northeast of the City of Bakersfield at 27001 Round Mountain Road. The facility's geographic coordinates are 35 32' N, 118 55 W. The facility is located on Lot 2 of the northern 1/2 of Section 2, T28S, R28E, Mount Diablo Base and Meridian. Kern County Assessors Parcel Numbers for this site are 093-010-05-00-6, 093-010-06-00-9. A location map of the facility is provided in Attachment 1, and a description of the Facility is provided in Attachment 2.

4. DESCRIPTION

The Facility is a closed 150 acre site which was used for the disposal of Class II-1 designated wastes. These wastes consisted of liquid, semi-solids, and solid wastes which were predominantly generated from local oil field exploration and production. Wastes accepted commonly included oily wastes, oil field drilling mud, and oil field scrubber wastes. Constituents in these wastes generally contained elevated levels of metals, as well as hydrocarbons, biocides, and some organic solvents.

The Facility was opened in 1973 by the M.P. Disposal Company. On August 21, 1981 the M.P. Disposal Company notified the California Department of Health Services (DHS) of sale of the Facility to Chemical Waste Management. Chemical Waste Management continued hazardous waste disposal operations at the site until October 1985. At the time of closure, the Facility was composed of two waste management units known as the Eastern and Western Waste Management Units, and within these waste management units were nine surface impoundments, two landfills, and a land spreading area. These disposal areas are described in greater detail in Part IV of this Permit.

On June 26, 1987 DHS approved the Facility's Closure Plan. The approved Closure Plan proposed closure construction work to permanently contain the disposed wastes left in place at the Facility. In 1987 closure construction work was completed. Closure construction work included stabilization of liquids and sludges in all surface impoundments, consolidation of contaminated material from unmanaged areas into designated waste management units, grading for placement of a closure cover, placement of the closure cover, construction of drainage and erosion control features, and vegetation of the closure cover. The closure cover was installed on approximately 91 acres and included 18 inches of compacted clay and 15 inches of top soil.

5. FACILITY SIZE AND TYPE FOR FEES

The Facility is categorized as a large post-closure facility for purposes of HSC, section 25205.19. For the purpose of HSC, section 25205.4, the post-closure period for the Facility shall be deemed to have started April 1, 1988, which is the date Chemical Waste Management Inc. transmitted to DHS the *Closure Construction Report* and *Certification Submittal*. Closure certification was accepted by DHS on March 31, 1989.

Draft Post-closure Permit

PART III. GENERAL CONDITIONS

1. PERMIT APPLICATION DOCUMENTS

On March 30, 1981, DHS issued an Interim Status document to the M.P. Disposal Company for the Facility which was transferred to Chemical Waste Management, Inc. upon purchase of the site in 1981. On April 30, 1991 DHS issued the Facility's first 10-year post-closure permit.

The RCRA Subtitle C Site Identification Form, Revised RCRA Hazardous Waste Part A Permit Application, signed by Mr. Phil Perley, Closed Site Project Manager for Chemical Waste Management Inc.; and the Chemical Waste Management, Inc. Bakersfield Facility RCRA Post-Closure Permit Renewal Application Part B, dated August 5, 2005 is hereby approved and made a part of this Permit by reference (hereafter "Approved Application").

2. EFFECT OF PERMIT

(a) The Permittee shall comply with the provisions of the California Health and Safety Code, and Division 4.5 of Title 22, California Code of Regulations (Title 22, Cal. Code Regs.). The issuance of this Permit by DTSC does not release the Permittee from any liability or duty imposed by federal or state statutes or regulations or local ordinances, except the obligation to obtain this Permit. The Permittee shall obtain the permits required by other governmental agencies, including but not limited to, the applicable land use planning, zoning, hazardous waste, air quality, water quality, and solid waste management laws for the construction and/or operation of the post-closure Facility.

(b) The Permittee is permitted to monitor and maintain the post-closure Facility in accordance with the conditions of this Permit and the Approved Application. Any treatment or storage of hazardous wastes not specifically authorized in this Permit or described in the Approved Application is strictly prohibited.

(c) Compliance with the terms of this Permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment, including, but not limited to, one brought for any imminent and substantial endangerment to human health or the environment.

(d) DTSC's issuance of this Permit does not prevent DTSC from adopting or amending regulations that impose additional or more stringent requirements than those in existence at the time this Permit is issued and does not prevent the enforcement of these requirements against the Permittee.

(e) Failure to comply with any term or condition set forth in this Permit in the time or manner specified herein will subject the Permittee to possible enforcement action including but not limited to penalties pursuant to HSC section 25187. In addition, failure to submit any information required in connection with this Permit, or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit (Title 22, Cal. Code of Regs., section 66270.43).

(f) In case of conflicts between the Approved Application and this Permit, the Permit conditions take precedence.

(g) This Permit includes and incorporates by reference any conditions of waste discharge requirements issued to the Facility by the State Water Resources Control Board or the California Regional Water Quality Control Board, Central Valley Region, and any conditions imposed pursuant to section 13227 of the Water Code.

3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT

A Notice of Exemption has been prepared in accordance with the requirements of Public Resources Code section 21000 et seq. and the California Environmental Quality Act Guidelines, which are codified in Title 14, Cal. Code of Regs., section 15070 et seq.

4. ENVIRONMENTAL MONITORING

The environmental monitoring plan followed at the Facility is contained in the document *Amended Report of Waste Discharge Groundwater Monitoring Plan Chemical Waste Management, Inc. Bakersfield Facility Kern County, California* (Einarson Geoscience, Oct 1995), and comments contained in the document *Response to RWQCB Review of the Groundwater Monitoring Plan and Corrective Action Plan Chemical Waste Management Bakersfield Facility* (Einarson, Fowler & Watson, Oct 1997). These documents are hereby included in this permit by reference, and are hereafter referred to as the Approved Environmental Monitoring Plan.

(a) For the purpose of Title 22, Cal. Code of Regs., section 66264.91(b), the elements of the Groundwater Monitoring and Response Program for the CWM Bakersfield Facility are those described in Sections 3.1.2, 3.1.3, and 3.1.4 of the Approved Environmental Monitoring Plan.

(b) For the purpose of Title 22, Cal. Code of Regs., section 66264.92, the Water Quality Protection Standard for the CWM Bakersfield Facility is described in Sections 3.0 and 4.0 of the Approved Environmental Monitoring Plan.

(c) For the purpose of Title 22, Cal. Code of Regs., section 66264.93, the Constituents of Concern for the CWM Bakersfield Facility are described in Section 4.1 of the Approved Environmental Monitoring Plan.

(d) For the purpose of Title 22, Cal. Code of Regs., section 66264.94, the Concentration Limits for the CWM Bakersfield Facility are described in section 4.4 of the approved environmental monitoring plan. Concentration Limits may vary over time in accordance with statistical and other procedures set forth in the Approved Environmental Monitoring Plan.

(e) For the purpose of Title 22, Cal. Code of Regs., section 66264.95, the Monitoring Points and Points of Compliance for each regulated unit at the CWM Bakersfield Facility are described in Sections 3.1.2, 3.1.3, and 3.1.4 of the Approved Environmental Monitoring Plan.

(f) For the purpose of Title 22, Cal. Code of Regs., section 66264.96 the Compliance Period for each regulated unit at the CWM Bakersfield Facility is 30 years from the effective date of this permit.

(g) For the purpose of Title 22, Cal. Code of Regs., section 66270.31, the monitoring, recording, and reporting program for the CWM Bakersfield Facility is described in Section 4.6 of the Approved Environmental Monitoring Plan.

The location of groundwater monitoring wells is provided in Attachment 3.

5. WASTE MINIMIZATION CERTIFICATION

Pursuant to HSC, section 25202.9, the Permittee shall certify annually, by March 1 of each year for the previous year ending December 31, that:

- (a) The facility has a program in place to reduce the volume and toxicity of all hazardous wastes that are generated by the facility operations to the degree, determined by the Permittee, to be economically practicable.
- (b) The method of storage or treatment is the only practicable method or combination of methods currently available to the facility which minimizes the present and future threat to human health and the environment.

The Permittee shall make this certification, in accordance with Title 22, Cal. Code of Regs., section 66270.11. The Permittee shall submit the certification to the Department of Toxic Substances Control, Land Disposal Branch, 8800 Cal Center Drive, Sacramento, California 95826 and shall record and maintain onsite such certification in the Facility Operating Record.

6. WASTE MINIMIZATION CONDITIONS

- (a) The Permittee shall comply with the Hazardous Waste Source Reduction and Management Review Act (SB 14) requirements that are specified in HSC, sections 25244.19, 25244.20 and 25244.21, and any subsequent applicable statutes or regulations promulgated thereunder. This would include submittal of SB 14 documents to DTSC upon request.
- (b) DTSC may require the Permittee to submit a more detailed status report explaining any deviation from, or changes to, the waste minimization plan.

7. CONDITIONS APPLICABLE TO ALL PERMITS

Title 22, Cal. Code of Regs., section 66270.30, Conditions Applicable to All Permits, is incorporated by this reference.

8. MODIFICATIONS

- (a) The Permittee must request and obtain a permit modification to revise any portion of this Permit. To request such a revision, the Permittee must comply with the procedures for permit modifications set forth in Title 22, Cal. Code Regs., section 66270.42.
- (b) If at any time DTSC determines that modification of any part of this Permit is necessary, DTSC may initiate a modification in accordance with the procedures in Title 22, Cal. Code Regs., section 66270.41.

PART IV. PERMITTED UNITS AND ACTIVITIES

The CWM Bakersfield Facility has two hazardous waste management units known as the Eastern Waste Management Unit (EWMU) and Western Waste Management Unit (WWMU). Enclosed within each of these waste management units are smaller individual land disposal areas. These waste management units and individual disposal areas are described in greater detail in the Approved Application. The primary disposal areas in the two waste management units include nine surface impoundments, two landfills, and one land spreading area. These areas are shown in the table below and in Attachment 4. All disposal areas are overlain by the closure cover which is constructed of 18 inches of compacted clay and 15 inches of top soil. The extent of the closure cover is shown in Attachment 3.

Disposal unit type	Unit name	Location within facility	Capacity
Surface impoundment	P-1	Eastern Waste Management Unit	3,400,000 gallons
Surface impoundment	P-2	Eastern Waste Management Unit	5,300,000 gallons
Surface impoundment	P-3	Eastern Waste Management Unit	5,100,000 gallons
Surface impoundment	P-5	Eastern Waste Management Unit	5,000,000 gallons
Surface impoundment	P-6	Eastern Waste Management Unit	3,000,000 gallons
Surface impoundment	P-7	Eastern Waste Management Unit	3,500,000 gallons
Surface impoundment	P-1W	Western Waste Management Unit	3,700,000 gallons
Surface impoundment	P-2W	Western Waste Management Unit	3,800,000 gallons
Surface impoundment	P-3W	Western Waste Management Unit	400,000 gallons
Landfill	B-1	Eastern Waste Management Unit	500,000 cu yards
Landfill	B-1W	Western Waste Management Unit	100,000 cu yards
Spreading area	S-1	Eastern Waste Management Unit	--

Collection and removal of leachate within the EWMU is accomplished through riser pipes connected to below ground collection sumps that are included in surface impoundments P-1, P-2, P-3, P-5, and P-6. Leachate collection and removal from the WWMU is accomplished through natural groundwater drainage and collection pipes that outfall into a detention pond known as the North West Canyon Sump. EWMU leachate risers and the North West Canon Sump are shown in Attachment 5 and Attachment 6.

PART V. SPECIAL CONDITIONS

The Department of Toxic Substances Control finds it is necessary to extend the post-closure period for the CWM Bakersfield Facility a minimum of thirty years from 2006. This finding is made to ensure isolation of wastes to minimize the risk posed by these wastes to either humans or environmental receptors for an indefinite and possibly perpetual period. A separate report entitled *Chemical Waste Management Bakersfield Facility Post-Closure Care Findings and Determination* (DTSC, 2006) documents these findings. This report additionally includes document review, analysis, and field observations which show that the existing closure cover is not effective in preventing rainfall from entering the waste or sustaining damage from weathering and animal activity. Extension of the post-closure period and replacing or conducting extensive repairs to the existing closure cover is required.

To address the extension of the post-closure period, the Facility shall provide:

1. Revised financial assurance equal to a 30-year cost estimate approved by DTSC for all elements of post-closure care. Attachment 7 provides a DTSC derived 30-year cost estimate. Should CWM not provide an alternate cost estimate which is deemed adequate by DTSC, CWM shall use the cost estimate included in Attachment 7. Revised financial assurance based on a DTSC approved 30-year cost estimate for all elements of post-closure care shall be submitted within 60 days from the effective date of the permit.

To address the deficiencies identified with the existing closure cover, the Facility shall provide:

2. Engineering plans and specifications to reconstruct the closure cover to original design specifications that meet regulatory requirements. These plans and specifications should specify a cover that includes the following components or their equivalent: a low hydraulic conductivity layer consisting of 24 inches of compacted clay and a geomembrane of a minimum thickness of 60 mil, a drainage layer, a biotic barrier layer, and a top soil layer of at least 24 inches. Plans and specifications must be submitted within 90 days from the effective date of the permit. Construction shall begin within 30 days of plan approval and must be complete within 180 days of initiation.
3. A cost estimate and financial assurance for cover reconstruction. This cost estimate will be included in the approved 30-year cost estimate which addresses all elements of post-closure care. The revised cost estimate and financial assurance for cover reconstruction shall be submitted within 60 days from the effective date of the permit.
4. Monthly leachate measurements and quarterly leachate production reports that document monthly rainfall.
5. A survey plat which shows the exact boundaries of the current closure cover and all disposal areas superimposed on a parcel map. The survey plat shall be submitted within 90 days from the effective date of the permit.

Fencing around the Facility should be maintained at all times, however, there are instances where cattle have been found inside the Facility perimeter. Therefore the Facility shall provide:

6. Plans and specifications to repair and upgrade fencing to effectively prevent cattle from entering the premises. Plans and specifications shall be submitted within 60 days from the effective date of the permit. Construction shall begin within 30 days of plan approval and should be complete within 180 days of initiation.

PART VI. CORRECTIVE ACTION

1. POTENTIAL OR IMMEDIATE THREATS/NEWLY IDENTIFIED RELEASES/ NEWLY IDENTIFIED SWMUs

(a) In the event the Permittee identifies an immediate or potential threat to human health and/or the environment, discovers new releases of hazardous waste and/or hazardous constituents, or discovers new Solid Waste Management Units (SWMUs) not previously identified, the Permittee shall notify DTSC orally within 24 hours of discovery and notify DTSC in writing within ten (10) days of such discovery summarizing the findings including the immediacy and magnitude of any potential threat to human health and/or the environment. Newly identified hazardous constituents discovered during routine groundwater sampling shall be reported in accordance the reporting provisions of the approved Environmental Monitoring Plan.

(b) DTSC may require the Permittee to investigate, mitigate and/or take other applicable action to address any immediate or potential threats to human health and/or the environment, SWMUs, or newly identified releases of hazardous waste and/or hazardous constituents. Corrective action shall be carried out under either a Corrective Action Consent Agreement or Unilateral Corrective Action Order pursuant to HSC, section 25187. (Attach CACA or Unilateral Order if finalized.)

2. SAMPLING AND ACCESS

(a) Sampling

(1) The Permittee shall provide confirmatory samples to DTSC within the time requested by DTSC to determine if there is a threat to human health and/or the environment. The sampling shall be done in accordance with guidance that DTSC supplies to the Permittee.

(2) The Permittee shall notify DTSC in writing at least fourteen (14) days prior to beginning any confirmatory sampling requested by DTSC. If the Permittee believes it must commence emergency confirmatory sampling without delay, the Permittee may seek emergency telephone authorization from DTSC's Land Disposal Branch Chief or, if unavailable, his/her designee to commence such activities immediately. At the request of DTSC, the Permittee shall provide or allow DTSC or its authorized representative to take split or duplicate samples of all samples collected by the Permittee pursuant to this Part of this Permit.

(3) The Permittee shall submit to DTSC upon request the results of all sampling and/or tests or other data generated by its employees, divisions, agents, consultants or contractors pursuant to this Permit.

(4) Notwithstanding any other provisions of this Permit, DTSC retains all information gathering and inspection authority rights including enforcement actions related thereto, under HSC and any other applicable state or federal statutes or regulations.

(b) Access

(1) DTSC, its contractors, employees, agents, and/or any U.S. EPA representatives are authorized to enter and freely move about the Facility pursuant to the entire Permit for the purposes of: interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts relating to the Facility; reviewing progress of the Permittee in carrying out the terms of this Permit; conducting such tests, sampling, or monitoring as DTSC deems necessary; using a camera, sound recording, or other documentary-type equipment; verifying the reports and data submitted to DTSC by the Permittee; or confirming any other aspect of compliance with this Permit and Division 20, Chapter 6.5 of the H&SC. The Permittee shall provide DTSC and its representatives access at all reasonable times to the Permittee's Facility and any other property to which access is required for implementation of any provision of this Permit and any provision of Division 20, Chapter 6.5 of the H&SC and shall allow such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Permit or undertake any other activity necessary to determine compliance with applicable requirements. DTSC acknowledges that the Facility is not manned 24-hours a day. DTSC will provide reasonable notice when requiring access to the site.

(2) To the extent that work being performed pursuant to this Part of this Permit must be done on property not owned or controlled by the Permittee, the Permittee shall use its best efforts to obtain access agreements necessary to complete work required by this Part from the present owner(s) or operator of such property within ninety (90) days of approval of any workplan for which access is required. "Best efforts" as used in this paragraph shall include, at a minimum, a certified letter from the Permittee to the present owner(s) of such property requesting access agreement(s) to allow the Permittee and DTSC and its authorized representatives access to such property and the payment of reasonable sums of money in consideration of granting access. The Permittee shall provide DTSC with a copy of any access agreement(s). In the event that agreements for the access are not obtained within ninety (90) days of approval of any workplan for which access is required, or of the date that the need for access becomes known to the Permittee, the Permittee shall notify DTSC in writing within fourteen (14) days thereafter regarding both efforts undertaken to obtain access and its failure to obtain such agreements. In the event DTSC obtains access, the Permittee shall undertake approved work on such property.

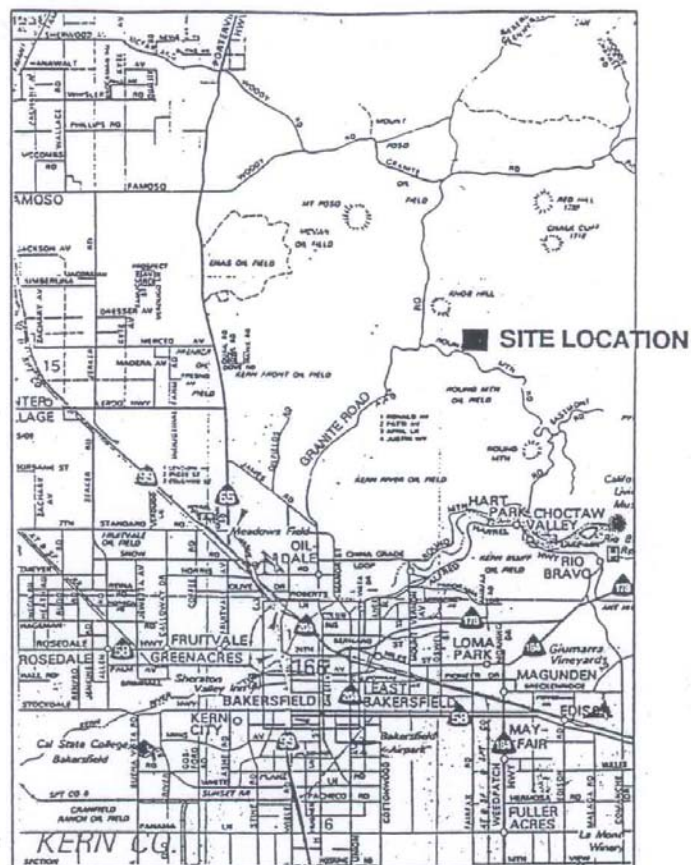
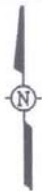
(3) Nothing in this Permit shall be construed to limit or otherwise affect the Permittee's liability and obligation to perform corrective action including corrective action beyond the facility boundary, notwithstanding the lack of access. DTSC may determine that additional on-site measures must be taken to address releases beyond the Facility boundary if access to off-site areas cannot be obtained.

(4) Nothing in this Permit shall limit or otherwise affect DTSC's right to access and entry pursuant to any applicable state or federal laws and regulations.

PART VII. ATTACHMENTS

- Attachment 1. Location map
- Attachment 2. Description of facility
- Attachment 3. Groundwater monitoring locations, waste management units, and closure cover area
- Attachment 4. Disposal units
- Attachment 5. Leachate riser in EWMU
- Attachment 6. Northwest Canyon Leachate Sump in WWMU
- Attachment 7. CWM Bakersfield Post-Closure Cost Estimate

Draft Post-closure Permit



SOURCE: THOMAS BROS. MAPS—CALIFORNIA
ROAD ATLAS AND DRIVERS GUIDE,
COPYRIGHT 1988



Attachment 1. Location map



Chemical Waste Management, Inc.

Post Office Box 471
Kettleman City, California 93239
209/386-9711

June 26, 1989

Regional Administrator
Toxic Substances Control Division
U.S. Environmental Protection Agency
215 Fremont
San Francisco, CA 94105

Vernon Reichard, Director
Kern County Environmental Health Division
Hazardous Materials Management Program
2700 M Street, Suite 300
Bakersfield, CA 93301

RE: Chemical Waste Management's Bakersfield Facility Post-Closure
Notices (CAT 000624056)

Dear Sir:

Pursuant to 40 CFR 264.119 and 22 CCR Section 67219, enclosed please find a record of the type, location and quantity of hazardous waste disposed of in each waste management unit. This information was previously submitted in the CLOSURE AND POST-CLOSURE PLANS, Emcon Associates (November 1985). These sections, it may be noted, refer to the quantity of waste disposed, not the quantity treated. Large quantities of hazardous waste, for example, typically flow through a treatment facility during its operating life but are not disposed there.

Surface impoundments treat hazardous waste in part by evaporation, and over their useful life will treat a quantity of waste much larger than their volume capacity. At the end of their useful life, a quantity of waste sludges and other materials typically remain in the impoundment. This submittal, therefore, quantifies the amount and types of waste disposed of in the units for final closure, not the amount of waste treated in the units over their lifetime. The surface impoundments were closed by solidifying sludges remaining at the time of closure. Additionally, during closure activities, waste (contaminated soil) from undesignated areas onsite was disposed of in the surface impoundments. Therefore, the volume of waste disposed of in each surface impoundment is interpreted as being it's entire volume (see Table 1).

Waste streams at the facility consisted principally of oil field related wastes (e.g. flue gas scrubber water, oily water, soil

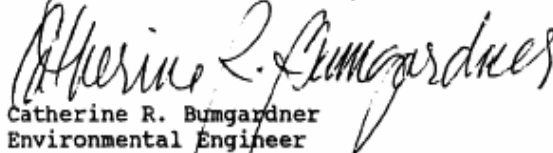


contaminated with oil, etc.)). Depending upon site conditions and capacity, it is possible that any type of waste accepted at the facility was treated in any one impoundment. All of the impoundments are regulated equally as far as closure and post-closure requirements. For this reason, it is not necessary to identify in great detail the types of waste accepted into each individual impoundment. However, from the review of existing facility records an account has been made of the predominant waste streams accepted at each impoundment (see Table 1).

In a letter dated April 1, 1988, Chemical Waste Management submitted the survey plat required by the same statutes. This is to confirm that no changes to that survey plat are necessary due to the additional waste exploration activities conducted at the facility.

Please do not hesitate to call with any questions you may have regarding this submittal.

Sincerely,
CHEMICAL WASTE MANAGEMENT, INC.


Catherine R. Bumgardner
Environmental Engineer

ENCLOSURE

CC: Randy Abbott, KCPAD
Jim Breightlow, EPA
Frank Dellechiaie, DHS
Michael Feeley, EPA (T-2-4)
John Papathakis, DHS
Bill Pfister, RWQCB
Mostafa Radmand, EPA
Cliff Raley, RWQCB
Gerald White, DHS

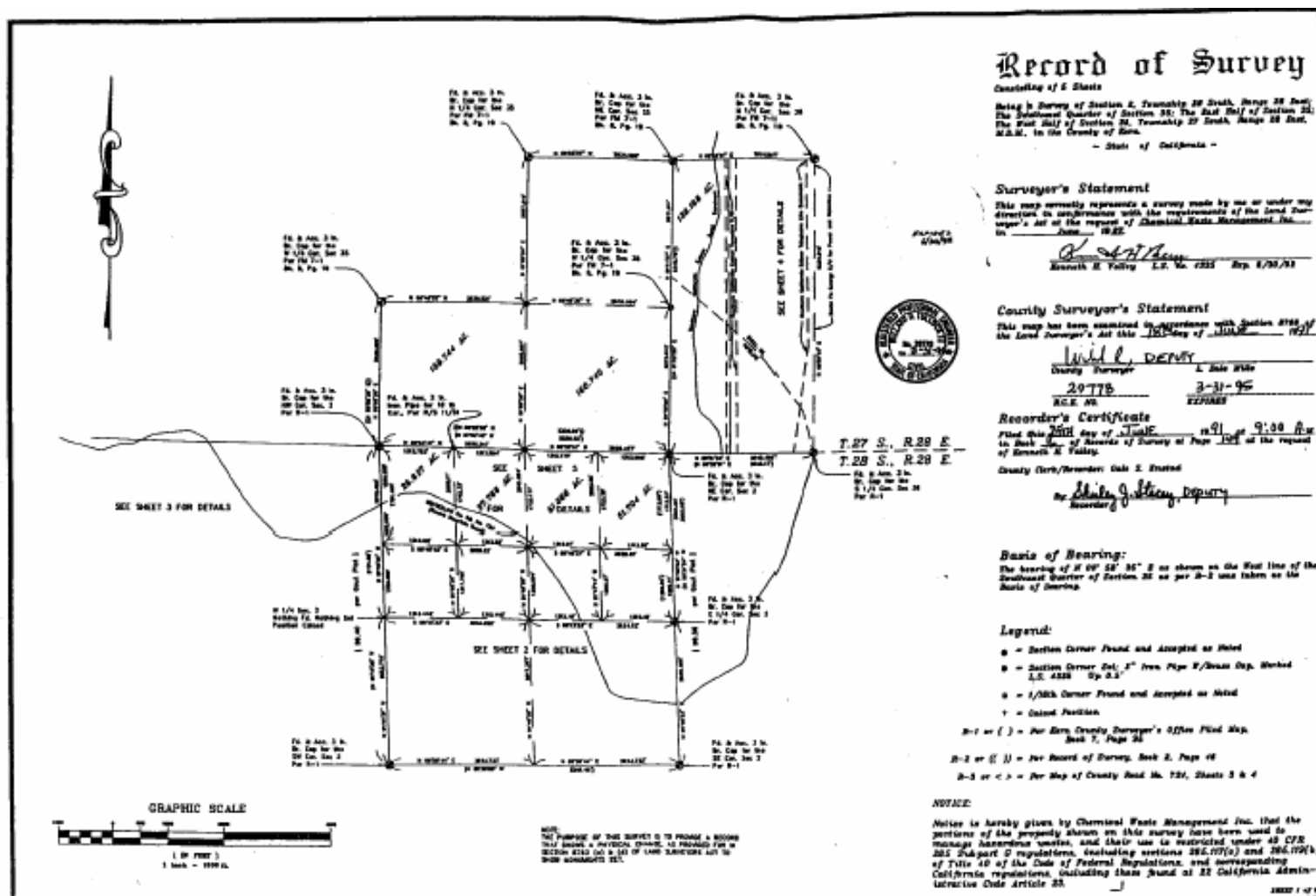


Table 1'

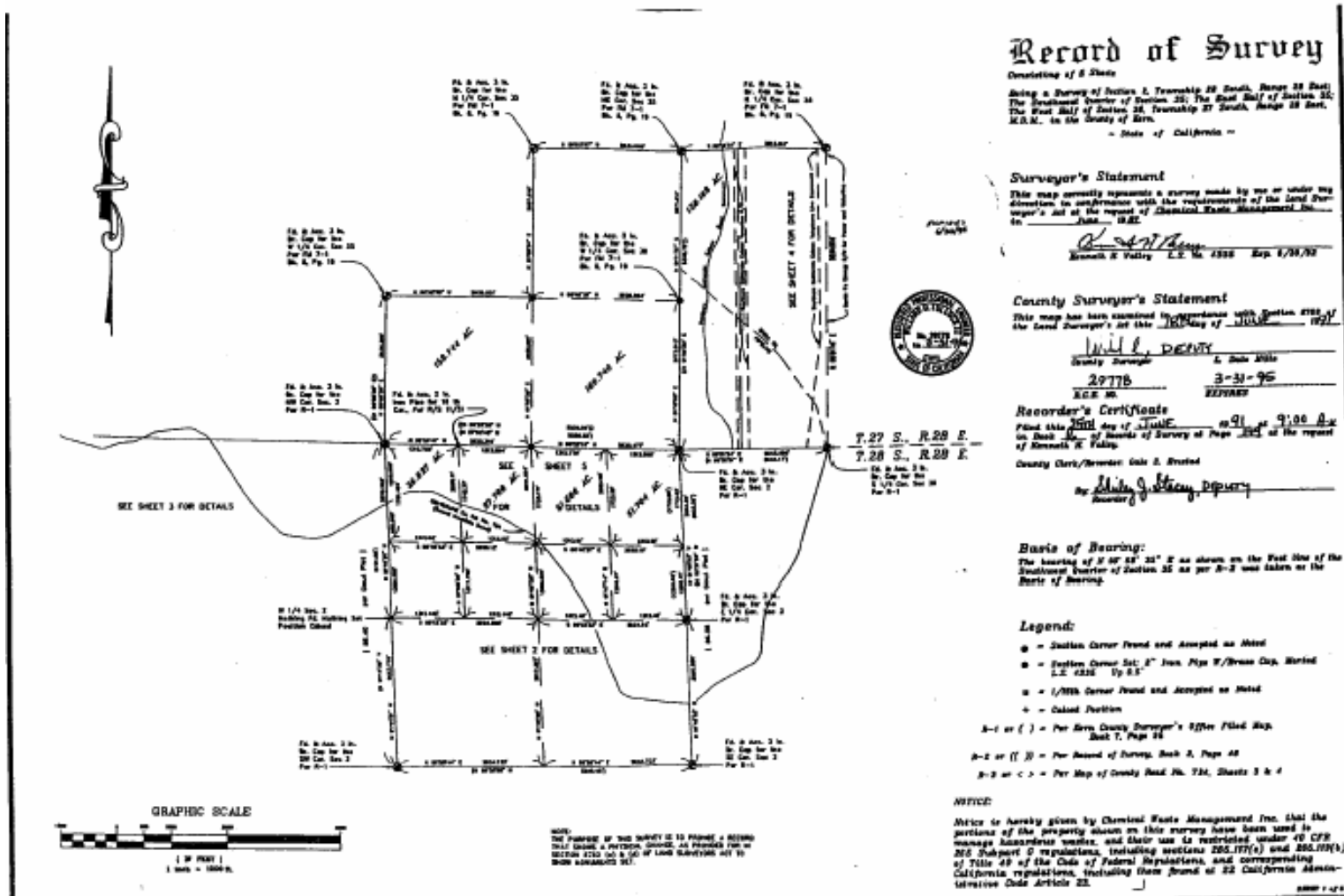
Waste Management Unit	Volume (cubic yards)	Predominant Waste Type
P-1	16,835	Tank bottoms Drilling mud
P-2	26,243	Scrubber water Waste water
P-3	25,253	Scrubber water
P-5	24,757	Scrubber water Waste water
P-6	14,854	Scrubber water
P-7	17,330	Tank bottoms Drilling mud Waste water
P-1W	18,320	Drilling mud
P-2W	18,816	Drilling mud
P-3W	1,981	Drilling mud
S-1	500,000	Drilling mud, Contaminated soil
B-1W	100,000	Drilling mud, Contaminated soil

'This Table is excerpted from the CLOSURE AND POST-CLOSURE
PLANS, EMCON Associates (November 1985)

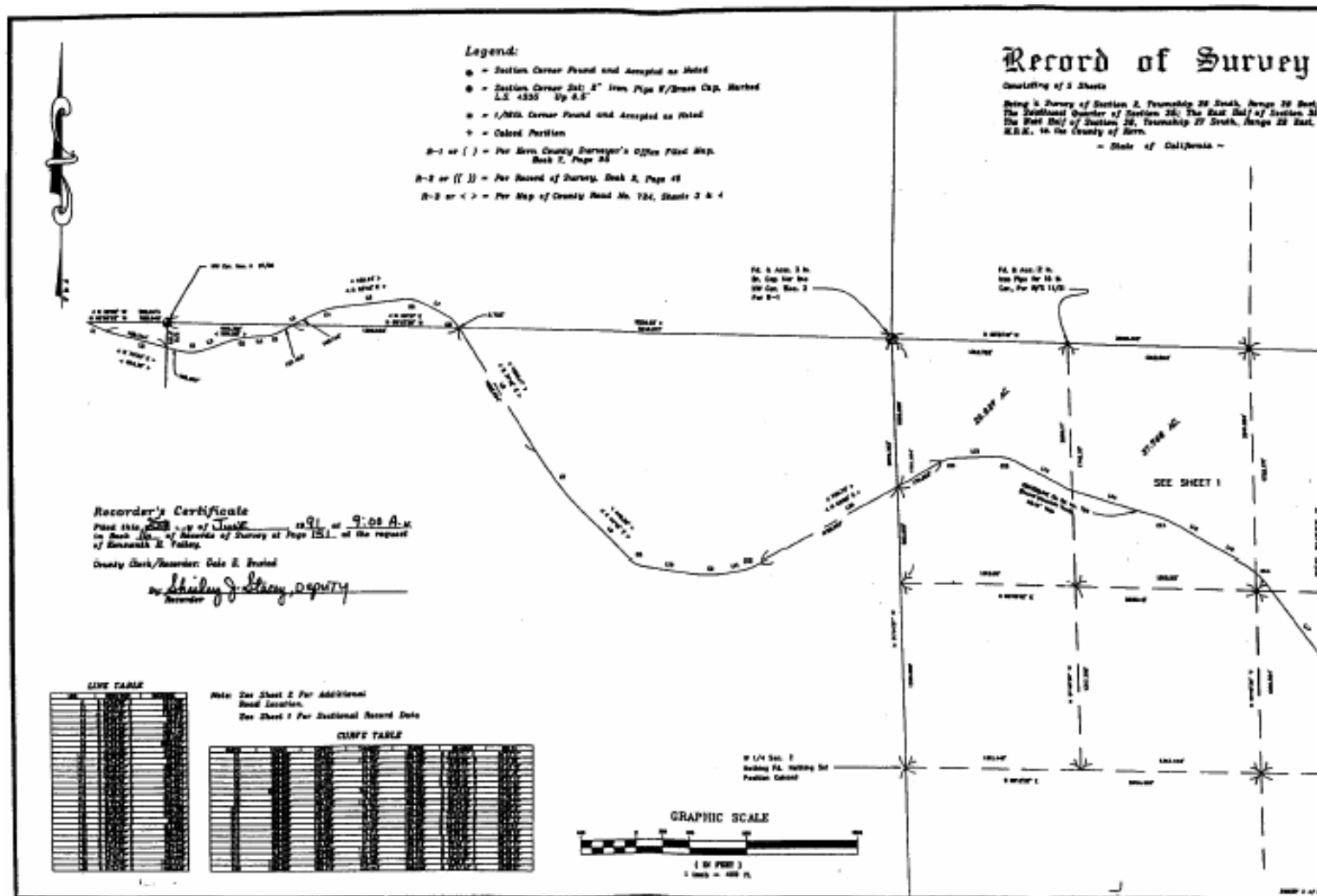
♻️ Printed on recycled paper



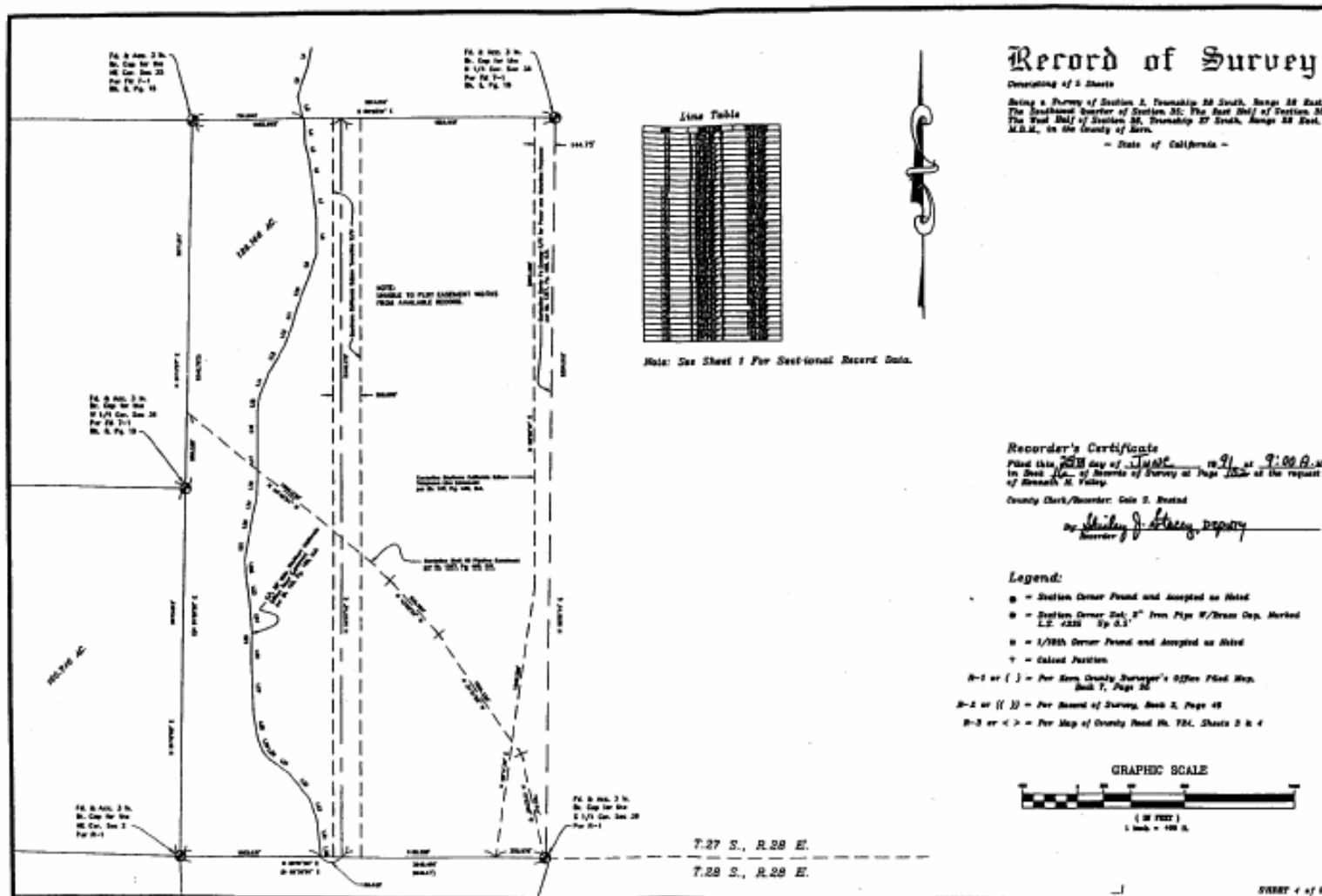
Attachment 2. Description of facility



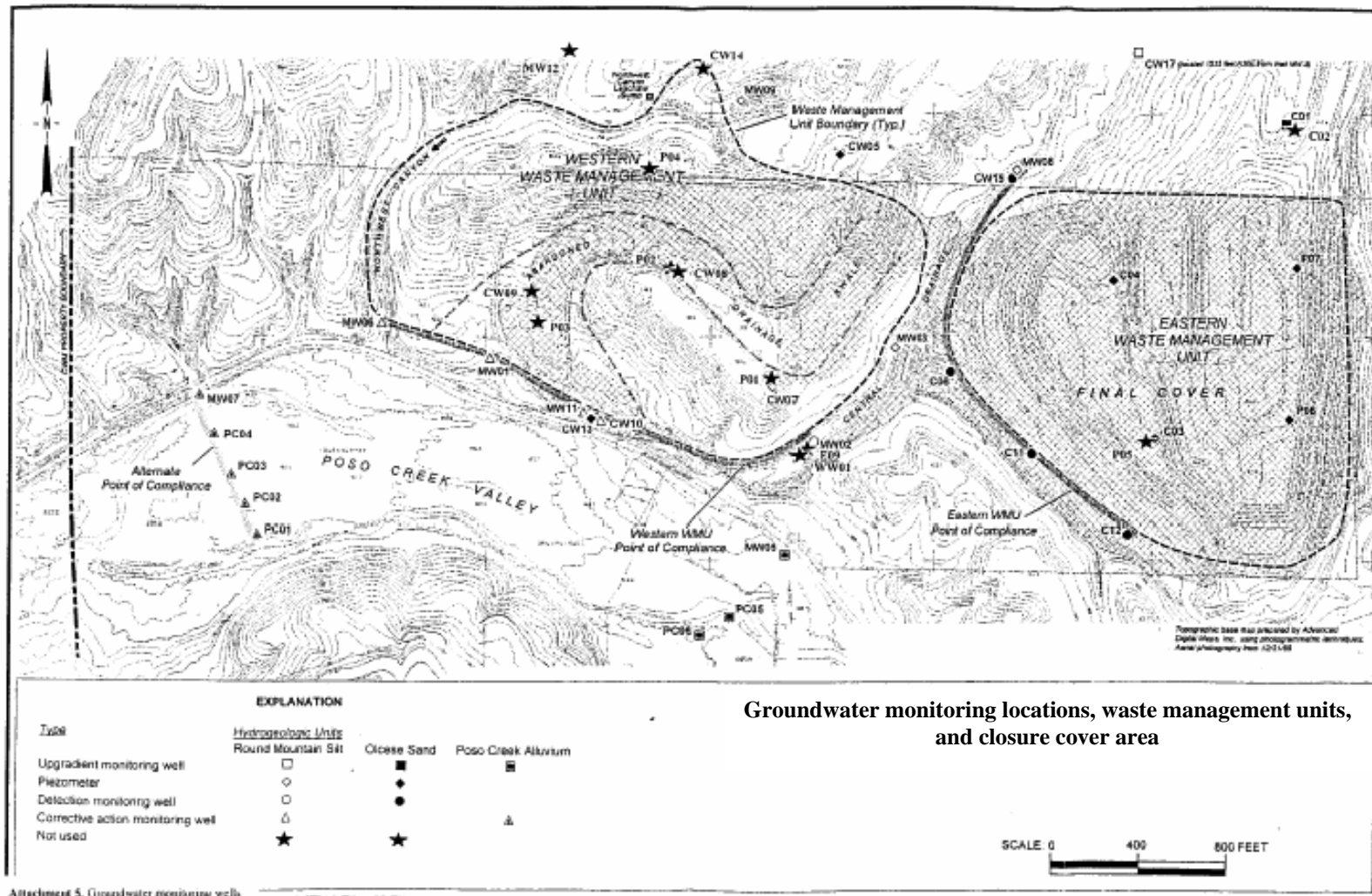
Attachment 2. Description of facility



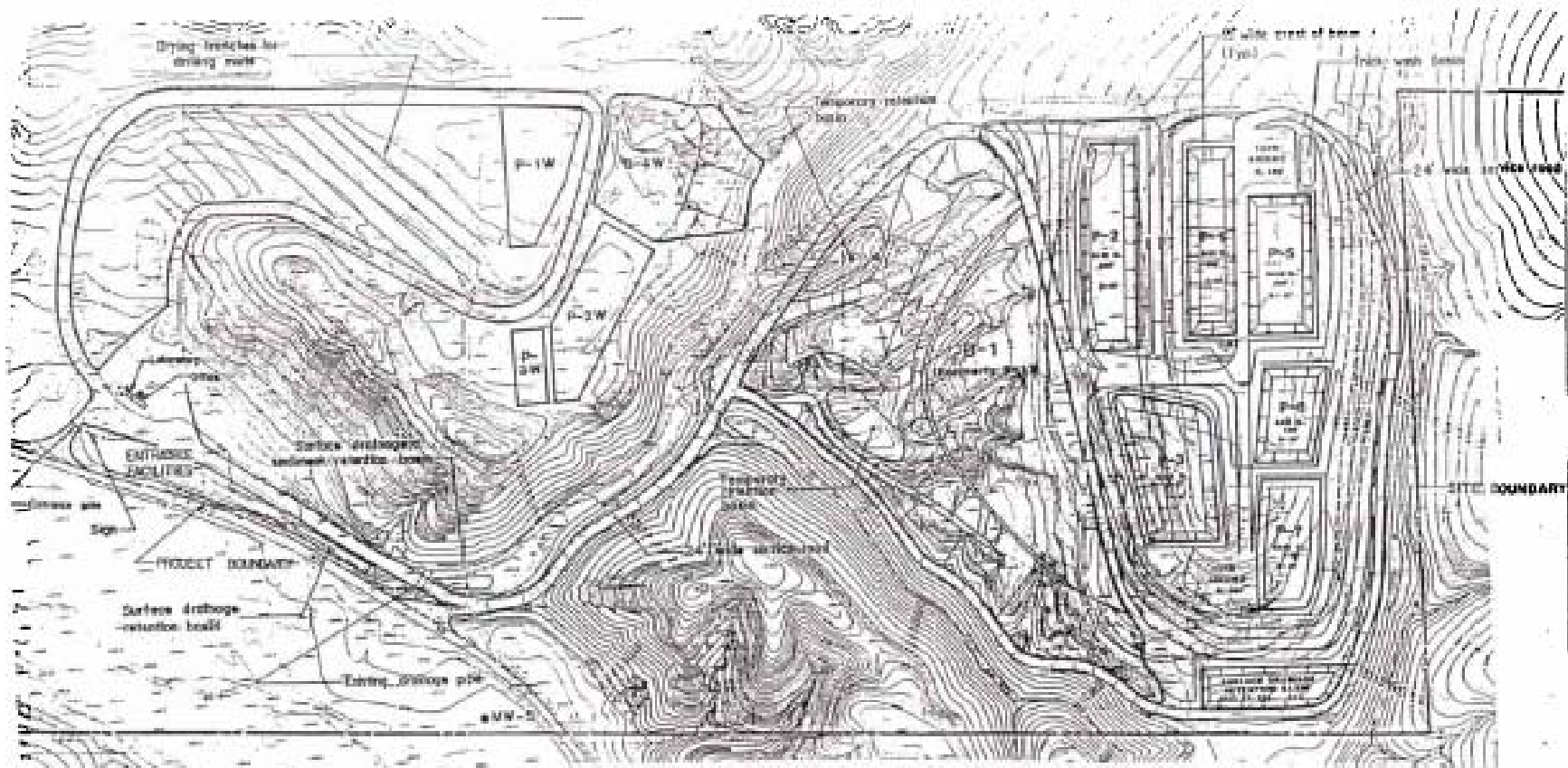
Attachment 2. Description of facility



Attachment 2. Description of facility



Attachment 3. Groundwater monitoring locations, waste management units, and closure cover area



Explanation

- P - Ponds with surface impoundments
- B - Burial areas

Attachment 4. Disposal units



Attachment 5. Leachate riser in EWMU



Attachment 6. Northwest Canyon Leachate Sump in WWMU

CWM Bakersfield post-closure FR cost-estimate

Groundwater monitoring				
Tasks	Cost per event	Total number of events	Annual cost estimate	Total cost estimate
Task 1 - Quarterly elevation monitoring	\$770	60	\$1,540	\$46,200
Task 2 - Semiannual groundwater monitoring	\$8,380	60	\$16,760	\$502,800
Task 3 - Semiannual reporting	\$4,420	30	\$4,420	\$132,600
Task 3 - Annual reporting	\$4,940	30	\$4,940	\$148,200
Task 4 - Semiannual analysis	\$19,643	60	\$39,286	\$1,178,580
Task 5 - COC analysis	\$8,106	6	\$1,621	\$48,636
Task 6 - Appendix IX analysis			\$0	\$0
Task 7 - Well maintenance	\$5,000	30	\$5,000	\$150,000
Totals			\$73,567	\$2,207,016

Leachate management and disposal				
Tasks - 44,000 gallons per year - average	Cost per event	Total number of events	Annual cost estimate	Total cost estimate
Task 1 - Monthly monitoring	\$285	360	\$3,420	\$102,600
Task 2 - NWC waste transportation	\$870	270	\$7,830	\$234,900
Task 2 - LCRS waste transportation	\$870		\$0	
Task 3 - NWC waste disposal - \$1.5 per gallon	\$7,500	270	\$67,500	\$2,025,000
Task 3 - LCRS waste disposal			\$0	
Task 4 - NWC waste analysis	\$700	30	\$700	\$21,000
Task 4 - LCRS waste analysis	\$460	30	\$460	\$13,800
Task 5 - NWC equipment repair	\$1,000	30	\$1,000	\$30,000
Task 5 - LCRS equipment repair	\$500	30	\$500	\$15,000
Totals			\$81,410	\$2,442,300

Inspections				
Tasks	Cost per event	Total number of events	Annual cost estimate	Total cost estimate
Task 1- Catastrophic Event Inspection	\$570	8	\$152	\$4,560
Task 2 - Monthly Cap Inspections	\$310	360	\$3,720	\$111,600
Task 3 - Independent 3rd party inspection	\$8,500	30	\$8,500	\$255,000
Task 4 - Annual surveying	\$5,000	30	\$5,000	\$150,000
Totals			\$17,372	\$521,160

Facility maintenance				
Tasks	Cost per event	Total number of events	Annual cost estimate	Total cost estimate
Task 1 - Annual facility maintenance	\$15,000	30	\$15,000	\$450,000
Task 2 - Annual site utilities				
Totals			\$15,000	\$450,000

Agency costs				
Tasks	Cost per event	Total number of events	Annual cost estimate	Total cost estimate
Task 1 - Hazardous waste facility fee	\$10,300	30	\$10,300	\$309,000
Task 2 - WDR Fees	\$15,000	30	\$15,000	\$450,000
Task 3 - Permit renewal fee	\$25,000	2	\$1,667	\$50,000
Totals			\$26,967	\$809,000

Administrative costs				
Tasks	Cost per event	Total number of events	Annual cost estimate	Total cost estimate
Task 1 - Project manager - .5 PY	\$50,000	30	\$50,000	\$1,500,000
Task 2 - Property taxes	\$12,000	30	\$12,000	\$360,000
Totals			\$62,000	\$1,860,000

Summary of post-closure cost estimate		
Category	Annual cost estimate	Total cost estimate
Groundwater monitoring	\$73,567	\$2,207,016
Leachate management and disposal	\$81,410	\$2,442,300
Inspections	\$17,372	\$521,160
Facility maintenance	\$15,000	\$450,000
Agency costs	\$26,967	\$809,000
Administrative costs	\$62,000	\$1,860,000
Sub-total	\$276,316	\$8,289,476
Contingency 20%	\$55,263	\$828,948
Totals	\$331,579	\$9,118,424

Attachment 7. CWM Bakersfield Post-Closure Cost Estimate